CLAIM LISTING

1.   (Previously Presented) A method of operating a base station comprising:

receiving a random access request for a traffic channel of a plurality of traffic channels on a first random traffic channel of the plurality of traffic channels, the first random traffic channel not designated as a random access channel, the traffic channels to be selectively allocatable by the base station for communication with a user terminal;

determining whether a traffic channel of the plurality of traffic channels is available to allocate to the requestor; and

communicating to the requestor whether a traffic channel of the plurality of traffic channels is available.

2.   (Original) The method of claim 1 wherein:

communicating includes denying the request for a channel.

3.   (Original) The method of claim 1 wherein:

communicating includes granting the request for a channel by assigning the first channel.

4.   (Original) The method of claim 1 wherein:

communicating includes granting the request for a channel by assigning a second channel and the first channel.

5.   (Original) The method of claim 1 wherein:

communicating includes granting the request for a channel by assigning a second channel instead of the first channel.

6.   (Original) The method of claim 1 wherein:

determining includes evaluating a load of the system.

7.   (Original) The method of claim 1 wherein:

determining includes evaluating an emergency status of the request.

8.   (Original) The method of claim 1 wherein:

determining includes evaluating a status of a subscriber from whom the request originates.

9.   (Original) The method of claim 8 wherein:

evaluating the status includes evaluating the subscription terms of the subscriber.

10.   (Original) The method of claim 8 wherein:

evaluating the status includes evaluating the payment history of the subscriber.

11. (Original) The method of claim 1 wherein:

determining includes evaluating a nature of the request.

12. (Original) The method of claim 11 wherein:

the nature of the request includes a high bandwidth requirement.

13. (Original) The method of claim 11 wherein:

the nature of the request includes a low bandwidth requirement.

14. (Original) The method of claim 11 wherein:

the nature of the request includes a set of capabilities of equipment used to make the request.

15. (Original) The method of claim 3 further comprising:

receiving a request for a third channel of the plurality of channels upon assigning of the first channel;

determining whether a third or fourth channel of the plurality of channels is available; and

communicating to the requestor the third channel availability or fourth channel availability.

16. (Previously Presented) A method of operating a user terminal comprising:

sending a request for a first unallocated traffic channel of a plurality of traffic channels on the first unallocated traffic channel to access a network; and

receiving an indication of availability of a traffic channel of the plurality of traffic channels.

17. (Original) The method of claim 16 wherein:

the request including a subscriber identification.

18. (Original) The method of claim 16 wherein:

the request including an emergency code.

19. (Original) The method of claim 16 wherein:

the request including an equipment identification.

20. (Original) The method of claim 16 wherein:

the request including a training sequence.

21. (Original) The method of claim 16 wherein:

the indication signaling no channel is available.

22. (Original) The method of claim 16 wherein:

the indication signaling the first channel is available.

23. (Original) The method of claim 16 wherein:

the indication signaling a second channel of the plurality of channels is available.

24. (Original) The method of claim 23 wherein:

the indication signaling the first channel is also available.

25. (Original) The method of claim 22 further comprising:

communicating using the first channel.

26. (Original) The method of claim 23 further comprising:

communicating using the second channel.

27. (Original) The method of claim 24 further comprising:

communicating using the first channel and the second channel.

28. (Original) The method of claim 25 further comprising:

sending a request for a third channel of the plurality of channels; and

Receiving an indication of availability of a channel of the plurality of channels.

29. (Original) The method of claim 28 wherein:

the indication signaling the third channel is not available.

30. (Original) The method of claim 28 wherein:

the indication signaling the third channel is available.

31. (Original) The method of claim 28 wherein:

the indication signaling a fourth channel is available.

32. (Original) The method of claim 21 further comprising:

waiting an inter-channel delay;

sending a request for a third channel of the plurality of channels on the third channel;

receiving an indication of availability of a channel of the plurality of channels.

33. (Original) The method of claim 32 wherein:

the indication signaling the third channel is not available;

determining no other channels may be requested;

waiting an inter-attempt delay; and

sending a request for the first channel on the first channel.

34. (Previously Presented) A method of providing access to a network comprising:

receiving a request for access to the network from a network subscriber, the request received on any random one of a plurality of traffic channels wherein the request is for the one traffic channel on which the request is received, and wherein each channel of the plurality of traffic channels is allocatable to subscribers for accessing the network; and

sending an access assignment to the subscriber to grant access to the network on an available traffic channel of the plurality of traffic channels based on an evaluation of factors.

35. (Original) The method of claim 34 wherein:

The factors include subscriber status, subscriber equipment, network loading, type of service requested, geographic location of the request, geographic location of the responding equipment, connection quality, usage history of the subscriber, and emergency status of the request.

36. (Previously Presented) A method of accessing a network comprising:

requesting access to the network on any random one of a plurality of traffic channels, wherein the request is for the one traffic channel on which the request is made, and wherein each channel of the plurality of traffic channels is allocatable to subscribers for accessing the network; and

receiving an access assignment to the network granting access to the network on an available traffic channel of the plurality of traffic channels based on an evaluation of factors.

37. (Original) The method of claim 36 wherein:

the factors include subscriber status, subscriber equipment, network loading, and emergency status of the request.

38. (Original) The method of claim 36 wherein:

the request includes information related to equipment used by a subscriber making the request.

39. (Original) The method of claim 8 wherein:

evaluating the status includes evaluating the usage history of the subscriber.

40. (Original) The method of claim 1 wherein:

determining includes evaluating the radio frequency characteristics of the request.

41-63. (Canceled)

64.   (Previously Presented) A machine-readable medium embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, the method comprising:

receiving a random access request for a traffic channel of a plurality of traffic channels on a first random traffic channel of the plurality of channels, the first random traffic channel not designated as a random access channel, the traffic channels to be selectively allocatable by the base station for communication with a user terminal;

determining whether a channel of the plurality of channels is available to allocate to the requestor; and

communicating to the requestor whether a channel of the plurality of channels is available.

65.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

communicating includes denying the request for a channel.

66.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

communicating includes granting the request for a channel by assigning the first channel.

67.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

communicating includes granting the request for a channel by assigning a second channel and the first channel.

68.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

communicating includes granting the request for a channel by assigning a second channel instead of the first channel.

69.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

determining includes evaluating a load of the system.

70.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

determining includes evaluating an emergency status of the request.

71.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

determining includes evaluating a status of a subscriber from whom the request originates.

72.   (Original) The machine-readable medium of claim 71 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

evaluating the status includes evaluating the subscription terms of the subscriber.

73.   (Original) The machine-readable medium of claim 71 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

evaluating the status includes evaluating the payment history of the subscriber.

74.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

determining includes evaluating a nature of the request.

75.   (Original) The machine-readable medium of claim 74 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

the nature of the request includes a high bandwidth requirement.

76.   (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

the nature of the request includes a low bandwidth requirement.

77.   (Original) The machine-readable medium of claim 74 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

the nature of the request includes a set of capabilities of equipment used to make the request.

78.   (Original) The machine-readable medium of claim 66 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

receiving a request for a third channel of the plurality of channels upon assigning of the first channel;

determining whether a third or fourth channel of the plurality of channels is available; and

communicating to the requestor the third channel availability or fourth channel availability.

79. (Original) The machine-readable medium of claim 71 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

evaluating the status includes evaluating the usage history of the subscriber.

80. (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

determining includes evaluating the radio frequency characteristics of the request.

81. (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

communicating includes at least one of: denying the request for a channel, granting the request for a channel by assigning the first channel, granting the request for a channel by assigning a second channel and the first channel, or granting the request for a channel by assigning a second channel instead of the first channel.

82. (Original) The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

determining includes at least one of: evaluating the radio frequency characteristics of the request, evaluating a load of the system, evaluating an emergency status of the request, evaluating a status of a subscriber from whom the request originates, or evaluating a nature of the request.

83-85. (**Canceled**)

86. (Previously Presented) The method of claim 1, further comprising calculating a set of spatial multiplexing weights and a set of spatial demultiplexing weights associated with the request.

87. (Previously Presented) The method of claim 1, wherein communicating to the requestor includes using the set of spatial multiplexing weights to tailor a multi-lobe antenna radiation pattern.

88-91. (**Canceled**)